

## CLAIMS

What is claimed is:

1. A connector for connecting a flexible elongate member having a sensor  
5 mounted thereon to a physiology monitor, the connector comprising:  
a housing having an internal passage therein;  
an electrical contact member disposed in the internal passage, the electrical  
contact member having a plurality of axially spaced contact members;  
a cable having a plurality of conductors, the plurality of conductors being  
10 electrically connected to respective axially spaced contact members;  
a sleeve having an opening therein which communicates with the internal  
passage in the housing and being moveable between an open position and a closed  
position;  
an interlock mechanism disposed in the housing having a locked position and an  
15 unlocked position, the interlock mechanism being in an unlocked position when an end  
of the flexible elongate member is fully inserted into the connector, the interlock  
mechanism being moveable between the locked position and the unlocked position by  
movement of the sleeve, wherein when the interlock mechanism is in the locked  
position, the sleeve is prevented from moving from the open to the closed position.  
20
2. The connector of claim 1, wherein the flexible elongate member is a guide  
wire.

3. The connector of claim 1, wherein the sleeve is a nose piece.

4. A connector for connecting a flexible elongate member having a sensor mounted thereon to a physiology monitor, the connector comprising:

5. a housing having an internal passage therein;

an engagement member disposed in the internal passage, the engagement member being moveable between an engaged position and a disengaged position, wherein the engagement member grips the flexible elongate member in the engaged position;

10. a sleeve having an opening therein which communicates with the internal passage in the housing and being moveable between an open position and a closed position, wherein when the sleeve is in the closed position, the engagement member is in the engaged position;

an interlock mechanism disposed in the housing having a locked position and an  
15. unlocked position, the interlock mechanism being in an unlocked position when an end of the flexible elongate member is fully inserted into the connector, the interlock mechanism being moveable between the locked position and the unlocked position by movement of the sleeve, wherein when the interlock mechanism is in the locked position, the sleeve is prevented from moving from the open to the closed position.

20.

5. The connector of claim 4, wherein the flexible elongate member is a guide wire.

6. The connector of claim 4, wherein the sleeve is a nose piece.

7. The connector of claim 4, further comprising grip tubing disposed in the housing and arranged coaxially around the flexible elongate member.

5.

8. A connector for connecting a flexible elongate member having a sensor mounted thereon to a physiology monitor, the connector comprising:

a housing having an internal passage therein;

an electrical contact member disposed in the internal passage, the electrical  
10 contact member having a plurality of axially spaced contact members;

a cable having a plurality of conductors, the plurality of conductors being  
electrically connected to respective axially spaced contact members;

an engagement member disposed in the internal passage, the engagement  
member being moveable between an engaged position and a disengaged position,  
15 wherein the engagement member grips the flexible elongate member in the engaged  
position; and

a sleeve having an opening therein which communicates with the internal  
passage in the housing and being moveable between an open position and a closed  
position, wherein when the sleeve is in the closed position, the engagement member is  
20 in the engaged position.

9. The connector of claim 8, wherein the flexible elongate member is a guide  
wire.

10. The connector of claim 8, wherein the sleeve is a nose piece.

11. The connector of claim 8, further comprising grip tubing disposed in the housing and arranged coaxially around the flexible elongate member.

12. A connector for connecting a flexible elongate member having a sensor mounted thereon to a physiology monitor, the connector comprising:

a housing having an internal passage therein;

10 a plurality of axially spaced contact members disposed in the internal passage of the housing, the plurality of contact members being moveable between engaged and disengaged positions with respect to the flexible elongate member;

a cable having a plurality of conductors, the plurality of conductors being electrically connected to respective contact members; and

15 a sleeve having an opening therein which communicates with the internal passage in the housing and being moveable between an open position and a closed position, wherein movement of the sleeve between the open and closed positions causes movement of the plurality of contact members between the disengaged and engaged positions such that when the sleeve is in the open position the plurality of  
20 contact members are in the disengaged position and when the sleeve is in the closed position the plurality of contact members are in the engaged position.

13. The connector of claim 12, further comprising a pair of engagement members disposed in the internal passage of the housing, the pair of engagement members being supported for movement between a released position and a clamped position in response to movement of the sleeve between the open and closed positions.

5

14. The connector of claim 12, wherein when the plurality of contact members are in the engaged position, the flexible elongate member is in electrical contact with the cable.

10 15. The connector of claim 12, wherein when the plurality of contact members are in the engaged position, the plurality of contact members mechanically grip the flexible elongate member so as to prevent the flexible elongate member from being withdrawn from the connector.

15 16. The connector of claim 12, further comprising an interlock mechanism disposed in the housing for movement between a locked position and an unlocked position and being operable to move to the unlocked position when an end of the flexible elongate member reaches a fully inserted position in the connector, wherein in the locked position the interlock mechanism prevents movement of the sleeve from the  
20 open to the closed position.

17. The connector of claim 12, wherein the flexible elongate member is a guide wire.

18. The connector of claim 12, wherein the sleeve is a nose piece.